

Appln. No. 09/905,716

Amendment Date: January 18, 2005

Reply to Office Action of November 18, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Amended) A receiver for receiving and efficiently separating a composite 3-G wireless communication signal into its constituent base-band components, wherein said receiver combines multiple processing tasks of a conventional receiver in two entities comprising

an equal-ripple linear phase recursive filter channelizer, and an equal-ripple linear recursive interpolator,

whereby [and] the channelizer entity performs the processing required to operate [for] multiple channels in a single device.

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2. A receiver as claimed in claim 1 wherein the tasks of spectral translation, of bandwidth reduction, and of interpolation to change sample rate by a rational ratio are embedded in a resampling polyphase filter bank, and

a [the] single polyphase filter can operate in a non-resampling mode so that the sample rate change is performed in a [the] post channelizer interpolator,

the single polyphase filter also operates in a resampling mode so that one part of the sample rate change is performed in the channelizer, and

another part is performed in the post channelizer interpolator.

3. A receiver as claimed in claim 1 comprising [moving the] input heterodynes for moving into and through the filtering operation so that the spectral translations occur after the filtering to permit a single filter to service multiple channels..

Cancel Claims 4 & 5, reserving the right to file the same in a divisional application.

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Applicant appreciates the allowance of Claims 1-3 and the statement of reasons to indicate allowable subject matter. Also, the disclosures of the prior art of record and not relied upon are noted and considered pertinent to Applicant's disclosure.

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